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GENERAL DISCUSSION ON TRANSNATIONAL CORPORATIONS IN THE WORLD ECONOMY AND TRENDS IN FOREIGN DIRECT INVESTMENT IN DEVELOPING COUNTRIES

The emergence of integrated international production

Report of the Secretary-General

SUMMARY

Transnational corporations have been adopting strategies that involve closer integration among their different activities and among their foreign and domestic locations. The new strategies, which coexist with older ones, have led transnational corporations to establish regional networks of affiliates and non-affiliated companies, and in some instances to seek linkages across regions. The new strategies are related to major global changes, including the formulation of regional trading groups.

The complex international production strategies of many transnational corporations are a central feature in an emerging, integrated international production system. This new system, advanced in some areas and embryonic in others, is being shaped by the activities of transnational corporations and by major changes in technology and public policy. How most developing countries fit into the emerging system remains an open question.

* E/C.10/1993/1.

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INTRODUCTION

1. At its eighteenth session, the Commission on Transnational Corporations requested the Secretary-General to prepare reports on transnational corporations in the world economy and trends in foreign direct investment in developing countries. 1/ The present report has been prepared in response to that request. The Commission also has before it related reports of the Secretary-General on trends in foreign direct investment (E/C.10/1993/2), the growth of foreign direct investment in the 1980s: trend or bulge? (E/C.10/1993/3) and the universe of transnational corporations (E/C.10/1993/11).

2. The rapid growth of foreign direct investment in the 1980s has been widely seen as evidence of the growing importance of transnational corporations in the world economy. 2/ World-wide flows of foreign direct investment grew three times faster than world exports and almost four times faster than the value of world output between 1983 and 1990, giving evidence of the growing importance of foreign direct investment in global economic integration. 3/ For most host economies for which data exist on a variety of measures of the relative importance of foreign direct investment and the activities of transnational corporations, it seems clear that the economic role of transnational corporations grew larger over the decade of the 1980s. 4/

3. The growth of foreign direct investment is only one measure of the importance of transnational corporations to world-wide economic development and their impact on host economies. Transnational corporations also control international production through non-equity linkages, such as franchising, subcontracting and joint ventures, and have increasingly engaged in strategic alliances with potential competitors, especially in high technology activities. The impact of transnational corporations on host economies includes not just the provision of capital through inflows of foreign direct investment but also the transfer of technology, including management expertise; the expansion of the host country role in international trade; the transfer of skills to host country nationals; and a stimulus to host country business enterprise through the local purchasing of raw inputs, business services and manufactured components. Transnational corporations contribute a package of attributes to the economies in which they operate. 5/

4. Transnational corporations adopt strategies to achieve both short-term and long-term objectives (such as a target rate of profit on invested capital and a rising market share or growth in the market value of assets) by utilizing the assets and abilities they own and control in the context of the economic and policy environment in which they operate. 6/ Strategies are formulated by a firm's decision makers as they evaluate and project the competitive strengths possessed by the firm, the likely strategies adopted by competitors and economic and policy conditions. The choice of strategy can differ across firms to the extent firms have different strengths and objectives, operate under different conditions or are subject to different judgements on the part of top managers.

5. Transnational corporations adopt or modify organizational structures in order to carry out their basic strategies. 7/ For example, in the United States of America, the multi-plant and multi-divisional organizational structures adopted by many manufacturing corporations in the first half of the

twentieth century were a response to the need to manage production for a large, diverse and geographically dispersed national market. These structures also led to the wider application of professional managerial skills and to the realization of cost savings from internalizing activities within the corporate organization. 8/ The successful application of this organizational structure gave United States corporations a competitive advantage in managing cross-border production. 2/

6. The content and distribution of the activities of transnational corporations is largely a function of aggregate economic conditions, the strategies adopted by transnational corporations and the organizational forms utilized to carry out those strategies. This report analyses recent developments in the strategies and organizational structures of transnational corporations, which are affecting both the functional and geographical organization of the activities of transnational corporations. Section I analyses the factors behind the evolution of strategies towards those involving a greater degree of cross-border integration of the functions that comprise a transnational corporation's value chain (see box 1). Section II analyses the changing geographical scope of corporate strategies, in particular the growth of regionally oriented networks organized by transnational corporations. Section III analyses the evolution of the strategies of transnational corporations towards a more complex form of organizing international production, while section IV discusses the implications of these trends for developing countries.

Box 1. The value chain of a firm

The concept of a chain of value added, or value chain, is a tool for analysing how a firm organizes and performs the discrete activities that add value to the goods and services it produces and sells to its buyers. A number of these activities are linked together vertically, in that each depends upon activities that occur at a prior level and feed into activities that occur at a later level. Other activities occur at any and all points and can be seen as linked horizontally.

Drawing upon the framework developed by Porter, a/ vertically linked activities include inbound logistics, such as site selection; operations, such as component assembly and final assembly in manufacturing; outbound logistics, such as movement of products; marketing, such as advertising and sales; and after-sales service. Horizontally linked activities include human resource management; research and development; procurement; finance; accounting; and other management functions, sometimes labelled as firm-wide infrastructural functions. While all firms perform all of these activities, their importance varies across companies and across products. Thus, operations and after-sales service are more important in automobiles and consumer electronics than in detergents, while services firms define operations quite differently from manufacturing firms. In addition, the importance of horizontal and vertical linkages may differ across companies. The ability of a firm to identify and exploit which of these activities and linkages are the most important for its overall performance is frequently seen as a source of success. b/

The activities within a value chain can be linked in a variety of ways and can be more or less closely integrated, combining intra-firm, extra-firm and cross-border linkages. The form and closeness of the linkages are determined by a corporation's strategy, its organizational structure, the external environment (especially costs), the demand for its output and public policies.

a/ Michael E. Porter, The Competitive Advantage of Nations (New York, The Free Press, 1990), pp. 40-44; see also John H. Dunning, Multinational Enterprises and the Global Economy (Wokingham, England, Addison-Wesley, 1993), especially chap. 7.

b/ Porter, op. cit., chap. 2; C. K. Prahalad and Gary Hamel, "The core competence of the corporation", in Gunnar Hedlund, ed., Organization of Transnational Corporations, United Nations Library on Transnational Corporations (London, Routledge, 1993).

I. FUNCTIONAL SCOPE OF INTERNATIONAL PRODUCTION

A. Functions of the firm

7. Firms exist in order to organize the production and distribution of goods and services. In the absence of firms, production and distribution would be organized largely through arm's-length market transactions between the owners of productive equipment, labourers, owners of distribution facilities and consumers. Many of these transactions are internalized within the firm and thereby take place outside of markets. The extent to which a firm internalizes arm's-length transactions depends on its ability to achieve scale economies in production and distribution and its ability to achieve coordination economies emanating from the extension of common governance over a larger share of economic activity. In many industries, the widening scope of internalized activity suggests the presence of substantial efficiency gains. 10/

8. The business firm performs a number of functions as part of the process of organizing the production and distribution of goods and services. The firm purchases or hires, and, in the case of labour, trains productive inputs; it combines these inputs to create goods and services; and it distributes and markets these goods and services to its customers. Corporations have specialists to handle these functions under such headings as procurement, human resource management, advertising and distribution. In addition, large and complex corporations require a range of managerial functions, including capital budgeting, cash management, accounting, information systems, strategic planning and legal and government relations.

9. Most firms originally serve national or subnational markets (exceptions would include firms established to engage in international trade or the international exploitation of natural resources). Firms build upon the competitive advantages gained in domestic markets to serve international markets, either via exports or by locating and controlling value-adding activities within host economies, a process called international production. International production includes all activities organized and controlled by transnational corporations within host economies that contribute to the value of output, including the creation of both goods and services and intermediate and final products. The choice between serving foreign markets through exporting or serving them through international production depends on how a firm evaluates the best manner of utilizing its competitive advantages, the gains to be made from the particular location in question and the potential gains from internalizing cross-border activities within the organizational structure of the firm. 11/ In many instances, the choice between exporting and international production will be strongly influenced by host country policies, including the degree and nature of trade barriers.

10. Firms that engage in international production need to adopt strategies and organizational structures that are suited to this form of international economic activity. Strategies for organizing the cross-border production of goods and services involve choices about the international location of different activities within a firm's value chain and the degree of integration among the various entities that fall under the common governance of the firm. Individual firms build upon their own advantages, which are heavily influenced by home country conditions but which are increasingly affected by the international

environment as firms expand their international production. Those firms that can most effectively adapt their strategies and structures to include elements derived from international production are the most successful in attaining or maintaining a global competitive advantage.

11. The range of possible strategies and organizational structures utilized by transnational corporations has evolved and expanded over time, as these firms have responded to major changes in the international economic, technological and policy environment (see table 1). Individual transnational corporations have adopted these strategies and structures to different degrees, because many of the conditions they face and the responses they select vary considerably. There is, however, an increasing tendency for transnational corporations to adopt strategies and structures that involve a greater degree of integration of functional activities between parent firms and their foreign affiliates, and among affiliates. The evolution of strategies towards those involving an increasingly complex set of relationships is evidence of the increasing functional integration of the activities of transnational corporations.

Table 1. Evolution of transnational corporation strategies and structures

Form	Types of intra-firm linkages	Degree of integration	Environment
Stand-alone (e.g., multi-domestic)	Ownership, technology	Distant	Host country accessible to foreign direct investment; significant trade barriers; costly communications and transportation
Simple integration (e.g., outsourcing)	Ownership, technology, markets, finance, inputs	Close at some points of value chain, distant at others	Open trade regime, at least bilaterally; non-equity arrangements; open foreign-direct investment regime
Complex integration production (e.g., regional core networks)	All functions	Potentially close throughout value chain	Multilateral trade and foreign-direct-investment regime; information technology; convergence in tastes; heightened competition

B. Stand-alone strategies

12. One common form of strategy utilized by transnational corporations is the establishment of stand-alone affiliates. In this strategy, parent transnational corporations control affiliates in one or more host countries, with each affiliate operating largely as an independent concern within the host economy. The primary link between the parent and affiliate is control through ownership,

although additional links can exist in the form of technology transfer or the supply of long-term capital. In general, however, a stand-alone affiliate is responsible for its output for most of the elements of the value-added chain. It may meet this responsibility purely internally, or through relationships with firms within or outside the host economy. Transnational corporations can control a large number of stand-alone affiliates, each serving a host economy and other markets and each having a direct organizational link to the parent.

13. Stand-alone affiliates are utilized in a variety of industries. Manufacturing affiliates serving host country markets, especially in cases where the host economy can provide significant resource inputs and where imports of materials and components are difficult or expensive, can be organized in a stand-alone mode. Such affiliates often develop their own linkages within the host economy with suppliers and subcontractors, thereby replicating within the host economy the organizational model employed by the parent firm. In many services industries, such as hotels and advertising, firms frequently operate as self-contained entities, offering their customers a complete package of services.

C. Simple integration

14. For some transnational corporations, their primary foray into international production occurs via outsourcing, with some activities within a firm's value chain being performed in host countries and linked to activities performed elsewhere. In manufacturing transnational corporations that utilize outsourcing, significant components or subsystems are manufactured in host countries and in some instances final assembly occurs in host countries, while the final product is sold in the home country or exported to world markets. The clothing industry provides many examples of outsourced international production; large, retail chains, such as Montgomery Ward (United States of America) and Marks and Spencer (United Kingdom of Great Britain and Northern Ireland), which have increasingly dominated the market in the developed economies, rely heavily on subcontracted production from developing countries. In addition, many natural resource affiliates represent examples of outsourcing, since they provide an initial step along the parent firm's chain of value added. Transnational services corporations have also utilized outsourcing, as in the use of foreign affiliates or subcontractors to process data or write software. 12/

15. Outsourced international production represents a transfer of some value-adding activities to locations other than the home country and the primary country or countries of final sale. The primary motive for outsourcing is to utilize the locational advantages of a host country with respect to a portion of a transnational corporation's value chain. Outsourced production is controlled by the parent transnational corporation either through ownership of the affiliate or through non-equity arrangements with local producers, such as subcontracting or joint ventures. The extent and nature of the intra-firm linkages may depend on where and how the outsourced production fits into a parent firm's value chain. Affiliates or firms related to the parent firm through non-equity arrangements cannot stand alone but must be integrated into the parent firm's value chain through the establishment of functional linkages.

Thus, integration of some corporate functions is required to manage outsourced international production.

16. More generally, outsourcing is predicated on the reduction or elimination of trade barriers between the home and host countries, on transnational corporations having access to host countries for foreign direct investment and on the existence of a low level of transport costs relative to the value of the outsourced output. The general lowering of tariff barriers under the General Agreement on Tariffs and Trade (GATT) regime and specific actions on the part of some developing countries to lower trade barriers as a component of development strategies has widened the geographic scope for the location of international production. Export-processing zones are often the location of outsourced production, with the maquiladoras along the border between Mexico and the United States providing an example.

D. Complex integration

17. More recently, a form of complex integration is emerging, whereby international production can occur at almost any point on a firm's value chain. Complex integration strategies are based on a firm's ability to undertake economic activities in any locations that are best suited to contributing to the profitability of the entire value chain. Under complex integration, any affiliate operating in any location can potentially perform functions for the firm as a whole. Output produced within host countries is combined with output from other host countries or the home country to create final products that are assembled in either host or home countries for sale in the home country, in host countries, or exported to world markets. Each distinct operation is evaluated in terms of its contribution to the entire value chain. There is a high degree of functional integration among the different processes occurring in various locations. Complex integration requires a willingness to locate various functional activities to meet the needs of the overall strategy, including not just production but also research and development, finance, marketing and other functions. Complex integration represents a further internalization of market transactions through either foreign direct investment or non-equity arrangements, thereby expanding the scope for obtaining economies of common governance. Industries such as automobiles and consumer electronics provide examples of complex integration. 13/

18. Complex integration strategies are being adopted by transnational corporations in response to major developments in the global economic environment. These include advances in information technology, a tendency towards greater cross-national convergence in demand patterns and an intensification of competition world wide. In addition, national and regional policy changes are also having an effect on the strategies of transnational corporations (see sect. II).

1. Technological developments

19. Rapid advances in technology have fostered the emergence of complex integration strategies for transnational corporations. Continuing advances in informatics and telecommunications have increased the capabilities and reduced

the costs of processing and communicating information; some portable computers can now perform more tasks at lower cost than many of the large mainframe computers of a generation ago. These improvements have allowed a decentralization in the utilization of information technologies and their widespread application throughout the value chain, which in turn has paved the way for the spread of flexible production technologies and new management and research-and-development practices throughout the world economy. Using new technologies, information can be transmitted in larger quantities to more locations and at lower cost than previously. Thus, information technologies have helped create possibilities for locating different components of a firm's value chain in host country locations, giving the parent transnational corporation greater scope for applying complex strategies.

20. Information technologies are also critical in coordinating activities across the value chain, another important element in complex integration strategies. The expansion of complex international production implies a growing role for the cross-national coordination of production and resource flows within a corporation. Similar to the manner in which the establishment of multi-plant and multi-divisional structures created the need for a larger managerial function within the corporation, the development of complex integration strategies has increased the opportunities for transnational corporations to gain competitive advantages from the management of their cross-border networks. The application of information technologies permits greater savings in managing inventories throughout a production system and a more rapid response to changes in consumer demand. Such flexibility has allowed the introduction of complex strategies in industries that were previously the purview of national firms or transnational corporations operating under stand-alone strategies. Examples include Benetton (Italy) and Levi Strauss (United States) in the clothing industry and IKEA (Sweden) in the furniture industry; these are all transnational corporations that have used information technologies to match production more closely with demand patterns in all of the host countries in which they operate.

2. Role of demand patterns

21. For some transnational corporations, the move to complex integration is stimulated by their attempts to serve world-wide product markets. Rising consumer demand and the tendency towards a cross-national convergence of certain consumer tastes have contributed to this trend. 14/ The growth of demand has opened and expanded markets in all regions of the world; at the same time, there has been a tendency for national and regional differences in product demand to become less important and for an increasing number of products of identical or similar design to be sold in multiple markets simultaneously. There are numerous examples of products, such as clothing, food, electronic goods, cameras and recorded music, that are marketed globally. Other products, including some automobile models, are often sold in different markets with relatively minor alterations.

22. The tendency for demand patterns to exhibit some convergence is due partly to a convergence in productivity and economic growth rates since the Second World War (at least among the developed economies); partly to the spread of communication technologies which increase the cross-national visibility of

national consumption patterns; and partly to marketing efforts by transnational corporations, especially the transnational spread of advertising. As products become more standard across countries, the ability of firms to be present in multiple markets increases. At the same time, it becomes necessary for firms to be present in multiple markets in order to challenge competitors and strengthen competitive positions throughout the world. 15/

23. The cross-national convergence of consumer tastes is, however, incomplete. Many products remain differentiated, due to important differences in culture, economic conditions and government regulations across countries. 16/ For example, the rationalization of the white goods industry within Western Europe has been limited by cross-national differences in demand patterns with respect to the size and design of household appliances. But the growing utilization of flexible production technologies has made it possible for firms to tailor output to niche markets without suffering large penalties in terms of higher costs, as was the case under mass production. However, such differences in demand and production suggest that national and regional factors will remain important in determining future strategies of transnational corporations.

3. Intensified competition

24. An important development fostering complex integration has been an intensification of international competition. The rapid growth of foreign direct investment has been accompanied by a substantial increase in the number of transnational corporations and the number of their foreign affiliates. For 1968-1969, it was estimated that there were more than 7,000 transnational corporations headquartered in the developed economies with more than 27,000 foreign affiliates. 17/ By the early 1990s, some 35,000 transnational corporations had been identified, and some 170,000 foreign affiliates. 18/ Moreover, the distribution of transnational corporations by home countries has become broader, to include more developed economies and a growing number of developing economies, giving further indication of intensified competition. In 1968-1969, almost 60 per cent of the transnational corporations from the developed economies came from two home countries, the United Kingdom and the United States; at the beginning of the 1990s, four home countries - Germany, Japan, Switzerland and the United States - accounted for 49 per cent of the transnational corporations based in the developed economies and the United Kingdom had slipped to seventh place. In addition, data on bilateral stocks and flows of foreign direct investment show that transnational corporations from the developed economies concentrate their foreign direct investment activities in other developed economies, indicating a substantial interpenetration of these economies by transnational corporations as well as large amounts of intra-industry cross-investments. 19/

25. The intensification of competition, combined with rapid advances in production technology, have provided a stimulus for transnational corporations to seek out new mechanisms for gaining international competitive advantages. Thus, firms have increased their efforts to attain cost savings and profit sources from foreign locations and from different elements of their value chains.

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26. These various factors have led to the adoption of strategies by transnational corporations that are increasingly of a network character. Networks involve a movement away from the hierarchical linkages typically found in stand-alone and simple integration strategies towards more complex combinations of horizontal and vertical linkages, with decision-making decentralized for some corporate-wide functions. Within networks, resources flow in both directions between parent firms and their foreign affiliates, and between individual affiliates. Networks develop complex cross-national linkages (see sect. II below) and closer integration both within firms and across firms (see sect. III below).

II. GEOGRAPHICAL SCOPE OF INTERNATIONAL PRODUCTION

A. Multi-country strategies

27. Stand-alone affiliates are often utilized as a component of a company-wide multi-domestic or multi-local strategy, whereby an affiliate primarily serves a single host country market while the parent corporation controls a number of affiliates in different markets. The existence of trade barriers with respect to both final and intermediate products, including high local-content requirements, have frequently required transnational corporations to adopt multi-domestic strategies in order to enter specific host economies. In some industries, for example retailing and food production, the absence of major technological improvements in such areas as communications, transportation and production management, the difficulty in achieving scale economies and the importance of cross-national demand differences also lead to multi-domestic strategies. In such instances, transnational corporations coexist with national firms in host country markets; the ownership and coordination advantages of transnational corporations compete with the knowledge of local conditions possessed by the national companies. Many transnational services corporations adopt multi-domestic strategies, since their output typically can only be delivered to host country markets via international production. In addition, small and medium-sized enterprises often concentrate their efforts on serving markets in close proximity to their home economies.

28. In recent years, technological advances in transportation and communications have reduced costs of cross-national coordination. As trade barriers have been reduced and as regional economic groupings have been formed, there have been a number of instances where transnational corporations have begun using a single affiliate to serve more than a single host country. This has occurred within the European Community as part of the transition to the Single Market and is occurring in the four-nation Common Market of the Southern Cone (Argentina, Brazil, Paraguay and Uruguay) in South America. 20/

B. Regional strategies

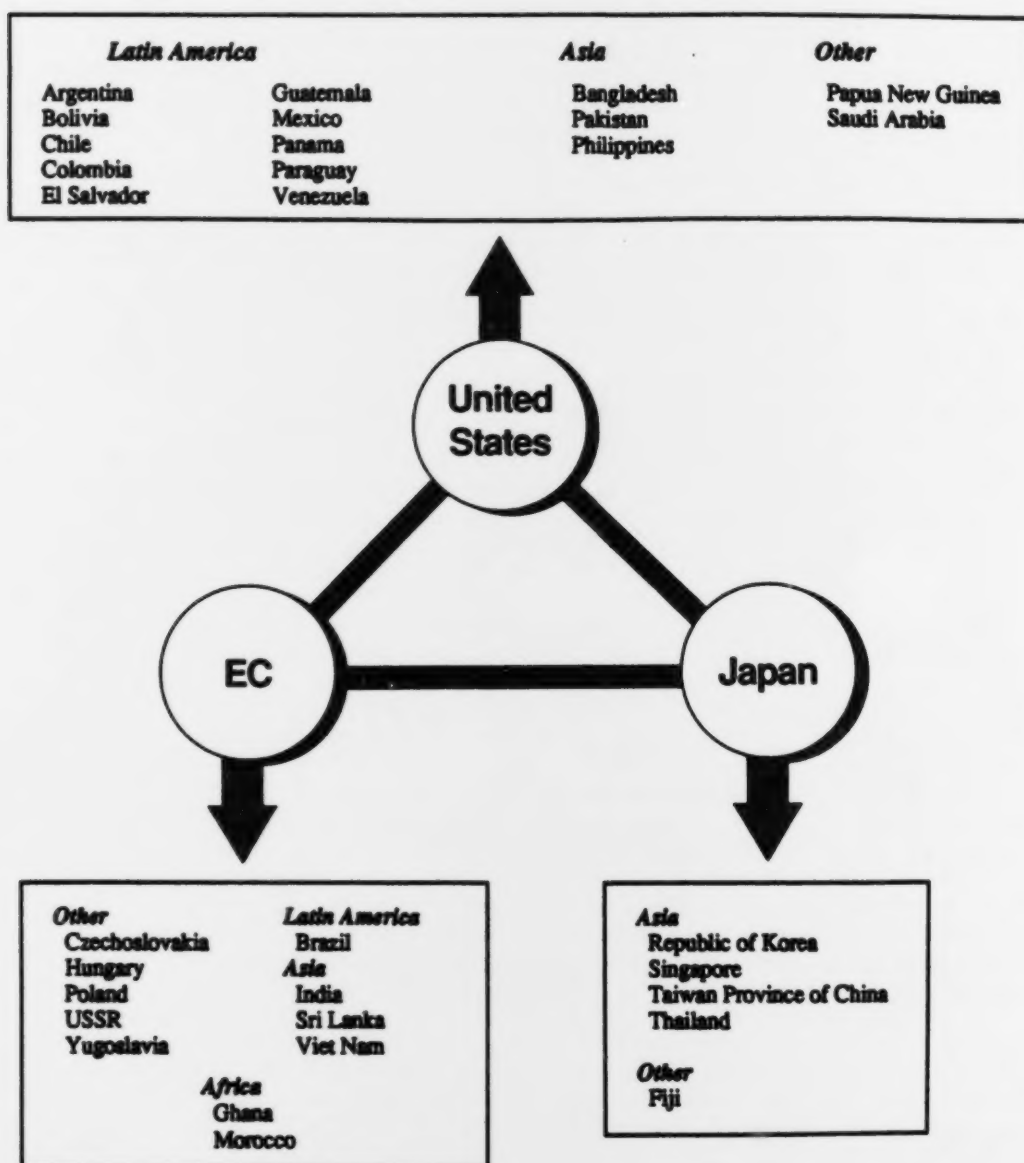
29. Many transnational corporations have developed production networks, comprising parent firms, affiliates and non-affiliated companies, that are primarily organized along regional lines. Regionalized international production includes affiliates located in a number of host countries within a single region, along with non-affiliated companies acting as suppliers and

subcontractors. Final assembly occurs in different countries within the region and a major market for the product is the same region. Regional core networks of transnational corporations have been noted in Europe and include affiliates located in Central and Eastern Europe as well as in Western Europe, in North America (especially with the growth of foreign direct investment into Mexico in recent years) and in East Asia, as a number of the newly industrializing economies have become important production locations and final markets. 21/

30. Evidence on foreign-direct-investment stocks and flows to developing countries from the three Triad regions (the European Community, Japan and the United States) suggests a clustering along regional lines, with United States transnational corporations being the dominant investors in much of Latin America and the Caribbean, Japanese transnational corporations being increasingly dominant in developing Asia and transnational corporations from the European Community occupying dominant positions in Central and Eastern Europe and much of Africa (see figure I). Such clustering of foreign direct investment is consistent with a strong regional orientation of the strategies of transnational corporations. 22/ In addition, evidence on strategic technology alliances indicates that the most common form of alliance is between firms located within a single Triad region, while the second most common form involves transnational corporations from a Triad region having alliances primarily in one other Triad region. Transnational corporations with alliances in a number of regions constitute a small proportion of the total. 23/

31. Changes in policies have been a major stimulant to regional strategies on the part of transnational corporations. In particular, the lowering of tariff barriers has permitted a wider geographical scope for the location of functionally integrated international production, while the liberalization of restrictions on foreign involvement in host economies, the deregulation of many industries (especially in the services sector) and the privatization of previously State-owned companies are partly behind the rapid growth of foreign direct investment in the 1980s. The growth of intergovernmental agreements to form or strengthen regional economic groupings, including the Single Market within the European Community, the European Economic Area and the North American Free Trade Agreement, has increased the incentives for transnational corporations to formulate regional strategies. However, the growth of such strategies in East Asia has largely occurred in the absence of intergovernmental agreements; instead, they have been fostered by the lowering of trade barriers on the part of countries of the region, the increasing competitive strengths of many of these countries and the desire of Japanese transnational corporations to develop lower-cost production locations following the rise in the international value of the yen after 1985. 24/

Figure I. Foreign-direct-investment clusters of Triad members, 1986-1989



Source: World Investment Report: Transnational Corporations as Engines of Growth (United Nations publication, Sales No. E.92.II.A.19), p. 33.

C. Global strategies

32. Transnational corporations have often been described as having global strategies. The term is frequently utilized to delineate cross-border functional linkages and degrees of integration and does not necessarily have a geographical scope. 25/ The term also describes the approach of many transnational corporations that seek to be present in all of the world's largest markets in order to take advantage of the growth and convergence of demand, as well as to compete effectively with other corporations. However, the world-wide spread of product categories, brand names and other indices of transnational corporations' sales activities is not necessarily accompanied by a similar geographical spread of all the locations of all the activities that comprise the value chain. Indeed, the initial strategy of some transnational corporations in meeting global demand is often to produce most of their output within their home country and distribute it globally either via exporting or through affiliates established in host countries largely as trading entities.

33. Transnational corporations are frequently able to serve global markets with networks that are largely concentrated on a regional or subregional basis. One prominent example is the strategies adopted by the largest Japanese transnational corporations in the automobile industry. Honda, Nissan and Toyota have all established or are in the process of establishing regional networks for the production and distribution of automobiles in each of the major Triad regions. 21/ Each network is linked to the parent corporation through ownership and other important linkages, is linked to affiliates and non-affiliated firms outside its region and sells some of its output outside its region. Moreover, individual products are quite similar across regions. However, an increasing proportion of the functions that comprise the value chain and the share of value added remains within the primary region of operations. Thus, these transnational corporations are meeting global objectives through the increasingly regional organization of their value chains.

34. Over time, transnational corporations may seek to adopt a greater geographical dispersion of the bulk of their activities (see box 2). At present, in those manufacturing industries that have proceeded the furthest in establishing complex international production, the economic benefits of widening the geographical scope beyond the regional level for many activities have not justified such moves. Some functions, such as finance, may operate globally; others, including worker training, remain largely national. The focus, however, appears increasingly to be on a regional orientation for much of the value chain. At the same time, the establishment of regional trade arrangements, in some cases with significant barriers to extraregional trade, such as local content restrictions that effectively limit extraregional trade in components, may also be an element restricting the growth of global strategies in the organization of the value chain. 26/

Box 2. Ford's Western European operations: an example of strategic evolution

The European operations of the Ford Motor Company (United States) present an example of the evolution of a transnational corporation's strategy over time. Ford was one of the first manufacturing corporations to attain significant competitive advantages through exploiting economies of scale in mass production. Because of high transport costs and trade barriers, Ford entered the Western Europe market not through exporting from the United States but via greenfield foreign direct investment, in 1911 (United Kingdom) and 1913 (France) and expanded further in the 1920s. Ford's affiliates in Western Europe increasingly operated in a stand-alone, multi-domestic mode, as trade barriers expanded and nationalist pressures remained high in an era dominated by two major wars and the Great Depression.

With the establishment of the European Community, Ford began to reorganize its production relations within Western Europe. A multi-domestic orientation was replaced by a regional one. Declining trade barriers, especially within the European Community, allowed for extensive cross-border movements in components and final products. For its highest selling models, Ford established multiple assembly and component plants, to take advantage of plant-level scale efficiencies and reduced transport and communications costs, while also remaining capable of meeting demand shifts and offsetting work stoppages throughout Western Europe (see figure II). Ford's models were specific to Western Europe and while European operations drew on the parent firm's resources, Ford of Europe operated with a substantial amount of autonomy, developing its own research and development, marketing and financial management.

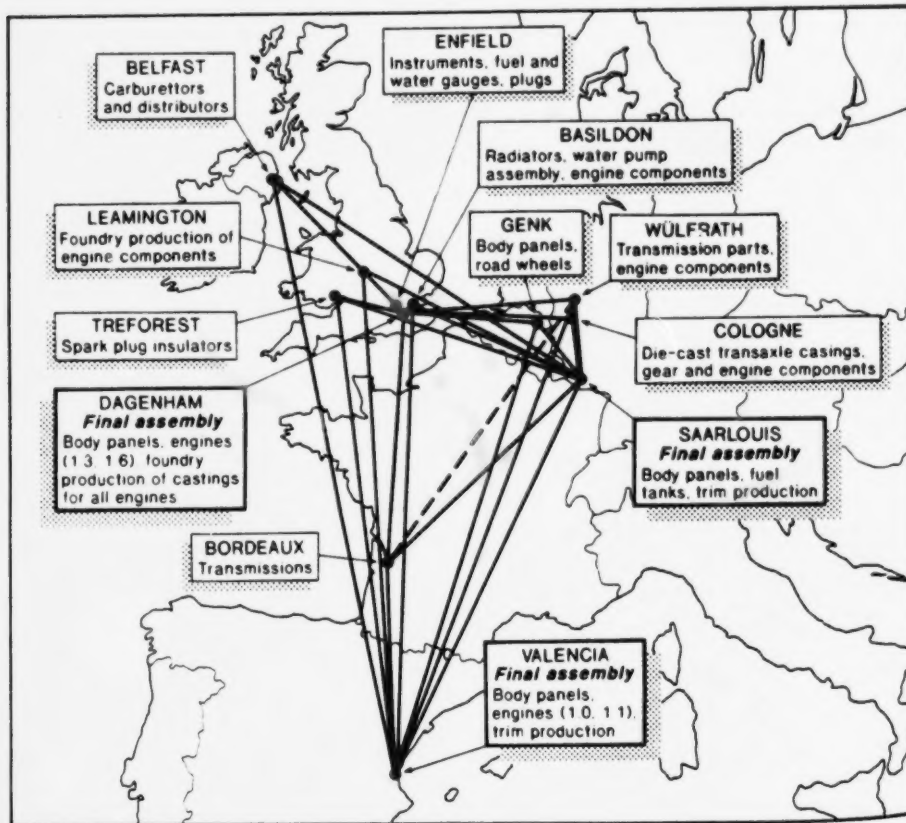
Recently, Ford announced plans to revive the notion of a "world car", a single model, assembled and sold in multiple markets and sourced globally (Ford also announced it is considering establishing a North American production network for the next model of the Jaguar, to exist alongside the United Kingdom network). Ford's Mondeo, to be introduced in Europe in 1993 and North America in 1994, will be assembled at plants in both regions, with major components, including engines and transmissions, built in both markets, and other components emanating from common suppliers either owned by Ford or linked through non-equity arrangements. The Mondeo, under development since the mid-1980s, is a response to the high fixed costs and excess capacity plaguing the automobile industry. It is designed to take advantage of flexible production technologies; improvements in transportation and communications; convergence of consumer tastes and safety and emissions regulations; and regional trading arrangements (the United States assembly plant will be supplied from an engine factory in Mexico).

Ford's previous attempt to construct a world car, the Escort, did not succeed, in part because Ford did not establish a single organizational

structure for product development. Although the Escort name was utilized in both Western Europe and North America, the two cars were distinct products. Ford has developed a new communications network for the Mondeo in order to integrate the work of research-and-development personnel world wide. If the Mondeo succeeds, it will represent an important step towards the extraregional integration of functional relationships. However, since Ford serves the Asia and Pacific market largely through exporting, this extraregional integration would encompass only two of the Triad's three legs.

Source: Peter Dicken, Global Shift: The Internationalization of Economic Activity (New York, The Guilford Press, 1992), pp. 298-302; Kevin Done, "A model to smash the mould", Financial Times, 6 January 1993; Richard A. Melcher, "Meet Ford's brave new 'world car'", Business Week, 18 January 1993.

Figure II. The Ford Fiesta production network in Western Europe



Source: Peter Dicken, Global Shift: The Internationalization of Economic Activity (New York, The Guilford Press, 1992), p. 300.

III. INTEGRATED INTERNATIONAL PRODUCTION

35. Changes in the global economic and policy environment have led transnational corporations to begin to adopt strategies that involve a growing degree of integration both across the functions performed by the firm and across a wider geographical area. This combination of greater functional and geographical integration is leading to an evolution in how transnational corporations organize the international production of goods and services, both within the traditional purview of the firm and across firms in wider organizational networks.

A. New organizational responses

36. Complex integration strategies pursued in a wider geographical context frequently require complex organizational structures. With international production occurring throughout a firm's value chain, a hierarchical structure may not provide sufficient flexibility to deal with conditions that may change rapidly at one point but not be changing at others. Similarly, basic corporate-wide functions, such as research and development, strategic planning, marketing and finance, may be required in different degrees at different points in the value chain. Transnational corporations that have adopted complex strategies have tended to alter their organizational structures accordingly. For example, many firms have moved from a horizontal, hierarchical structure towards a matrix structure, where reporting lines are often indirect and overlapping.

37. The internationalization of corporate functions is also present in the establishment by transnational corporations of decision-making authority for major business segments outside the parent corporation's home country. IBM (United States), for example, has located its networking systems headquarters in the United Kingdom; AT&T (United States) recently moved its headquarters for corded telephones to France; Hewlett Packard (United States) has located its desktop personal computer headquarters in France; while DuPont (United States) has two product headquarters in Switzerland and one in Japan. Hyundai (Republic of Korea) has established its personal computers headquarters in the United States. A number of European transnational corporations, including Asea Brown Boveri (Sweden and Switzerland), Siemens (Germany) and Unilever (Netherlands and United Kingdom), have established at least one global division outside of their home economies.

38. Some transnational corporations have established regional headquarters to manage regionally oriented networks. The primary function of regional headquarters is to provide coordination more efficiently than can be accomplished from more distant headquarters. The establishment of regional headquarters can be consistent with stand-alone strategies to the extent that those strategies have led to a concentration of foreign affiliates within a single region. More recently, however, the establishment of regional headquarters may have been a response to the rising degree of integration across affiliates within a single region. ^{27/} Thus, the growth of regionally integrated production networks in Asia by Japanese transnational corporations has been accompanied by an increase in the establishment of regional headquarters, especially in Singapore. The regional headquarters of Ford and

General Motors in Europe, although originally consistent with those firms' multi-domestic strategies, now manage complex intraregional production networks covering several models of automobiles; these include affiliates, subcontractors and firms linked through non-equity relationships. 28/

39. Among corporate-wide functions, there is evidence that transnational corporations have increasingly been locating a small but growing portion of their research-and-development activities outside their home country. One important motive is to take advantage of the skills available among technically trained people in host country locations. For example, IBM research on high-temperature superconductivity was undertaken in a facility located in Switzerland. The growing importance of research and development in production has also led to a greater portion of research and development being located near production facilities and near markets; as transnational corporations adopt complex international production strategies, they frequently adopt a more global approach with respect to research and development. Every Japanese automobile transnational corporation has established a design facility within the United States, in recognition of the importance of the United States market to their overall strategies.

40. Although organizational structures are supposed to carry out strategies, they can also be a hindrance to the effective management of corporate-wide strategies. Quite often, a particular organization or element of an organization is maintained, either due to inertia or because some decision makers judge it has not exhausted its profit potential. When that happens, organizational structures may help determine strategies, rather than strategies leading to changes in structures. In some transnational corporations, the attempt to establish complex international production strategies has been made difficult by the inability or unwillingness of many managers to adjust their thinking and behaviour from a home country or stand-alone structure. Monsanto (United States) moved the headquarters for its resins business to Belgium in order to be closer to its largest and fastest growing market - 50 per cent of Monsanto's world-wide resins business is in Europe. In addition, because many of its key corporate customers are transnational corporations with complex international production strategies, Monsanto felt that moving the division's headquarters would foster international integration and overcome the home country orientation prevalent in the parent company's headquarters. 29/ While establishing new structures can help overcome this, the disruptions caused by new structures may themselves lead to long-term inefficiencies. Linking strategies and structures is a complex undertaking that is not always managed successfully.

B. Non-equity arrangements and strategic alliances

41. The formulation of organizational structures to carry out the strategies of transnational corporations has become more complex with the growth of non-equity relationships. As a component of their complex international production strategies, transnational corporations have expanded their use of non-equity arrangements and in the process have created wider networks. Relationships between transnational corporations and their suppliers, subcontractors, licensees and franchisees have assumed greater importance in overall transnational corporation strategies. Many of these ancillary firms are

national companies, some are host country-based transnational corporations, while others are home country companies that often become foreign direct investors in order to maintain relationships established within the home country. These relationships have tended to assume a longer-term duration and parent transnational corporations to assume a more active involvement in the management of the ancillary firms. Thus, organizational structures need to encompass the activities of ancillary firms that are becoming more important to complex international production strategies.

42. A second set of non-equity relationships involves strategic alliances between two or more transnational corporations. Strategic alliances cover only a portion of a firm's activities, and a single transnational corporation may enter into strategic alliances with a large number of companies. In addition, alliances may be entered into with firms that are also competitors, establishing a complex relationship of simultaneous cooperation and competition. Strategic alliances have become increasingly important in high technology industries, such as computers, semiconductors, aircraft and telecommunications, where rapid technological change and rising development costs have created incentives for transnational corporations to seek alliances in order to share the costs and risks of new product development. 30/

43. Especially in the case of strategic alliances, but also in the case of subcontracting and other contractual relationships, the existence of these non-equity relationships raises important questions about how a transnational corporation organizes and governs its overall operations. Strategic alliances create relationships that are often blurred in terms of authority, with each party expecting to enhance the profitability of its ownership-specific assets or generate new ones. Alliance linkages tend to be horizontal rather than vertical and frequently require a rethinking of organizational structures. Such relationships also blur the traditional boundary lines of a firm, creating problems for many aspects of national regulatory policies. For example, cross-border alliances in high technology product segments have made the application of national security guidelines more difficult and are forcing many countries to re-evaluate such policies. 31/

C. Intra-firm resource flows

44. The expansion of complex international production implies an increase in cross-border, intra-firm activities and therefore an increase in the cross-border, intra-firm flow of resources. Relatively little data exist on intra-firm flows of resources. Available data on research-and-development outlays and patents suggest a growing role for transnational corporations in the international diffusion of technology. A number of transnational corporations have established cross-border networks for research and development, and data on research-and-development outlays and employment suggest that a small but growing proportion of the innovative activities of transnational corporations takes place in host countries. 32/ Data on receipts and payments of royalties and licence fees for the United States, a measure of technology transfer, indicate that during the 1980s more than 70 per cent of receipts represented intra-firm transactions between United States parent transnational corporations and their foreign affiliates, while 50 per cent of payments represented intra-firm

technology-related transactions between the United States affiliates of foreign transnational corporations and their foreign-based parents. 33/

45. Evidence on intra-firm trade for United States-based transnational corporations also indicates growing cross-border integration. The share of foreign sales (sales by foreign affiliates located within host countries, including their exports from host country locations) represented by intra-firm transactions (between parent firms and their foreign affiliates and among affiliates) rose between 1982 and 1989, indicating a greater degree of integration within United States-based transnational corporations. 34/ If data for the petroleum industry are removed (since this industry was subject to substantial changes in national ownership and the mode of product delivery), the cross-border integration of United States-based transnational corporations grew from 1977 to 1989. This growth in integration was quite marked in transportation equipment, a category that consists largely of automobile production. It was also marked within the western hemisphere, especially with respect to Mexico, suggesting that a high and growing degree of regional integration had been established even before the opening of negotiations on the North American Free Trade Agreement (see table 2).

46. Data on intra-firm trade capture only one part of the degree of integration occurring within transnational corporation networks, since these data measure only visible flows between parent transnational corporations and their foreign affiliates, and among affiliates controlled by the same parent. Resource flows between parent companies or their affiliates and enterprises linked through non-equity arrangements are not adequately measured; such flows are a further indicator of the increased integration of international production. Available evidence suggests that the incidence of non-equity arrangements has been rising and that transnational corporations have utilized non-equity arrangements as an integral part of global production strategies. In addition, such data do not capture the (invisible) resource flows associated with various other functions of an enterprise, which are likely to grow as international production becomes more integrated.

Table 2. Integration index a/ for United States transnational corporations, by sector and host region, 1977, 1982 and 1989

(Percentage share)

	1977	1982	1989
Total	32	24	29
Total, excluding petroleum	25	28	32
<u>Sector</u>			
Manufacturing	30	32	36
Transportation equipment	45	52	55
Services	8	14	14
<u>Region</u>			
Latin America and the Caribbean	29	26	35
Mexico	20	27	67
Asia and the Pacific	51	35	43
Developed countries	23	22	27
Canada	42	31	38
European Community <u>b/</u>	24	22	26

Sources: Transnational Corporations and Management Division of the Secretariat, based on United States, Department of Commerce, U.S. Direct Investment Abroad: 1977 (Washington, D.C., United States Government Printing Office, 1981), tables III.H.1, III.H.2, III.H.6, III.T.1, III.T.2; United States, Department of Commerce, U.S. Direct Investment Abroad: 1982 Benchmark Survey Data (Washington, D.C., United States Government Printing Office, 1985), tables II.P.1, II.P.2, III.E.1, III.E.2, III.E.6; United States, Department of Commerce, U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results (Washington, D.C., United States Government Printing Office, 1992), tables II.Q.1, II.Q.2, III.F.2, III.F.3, III.F.9.

a/ The integration index is calculated as the value of intra-firm international trade as a share of the value of sales by the majority-owned foreign affiliates of United States-based transnational corporations.

b/ Including 9 member countries for 1977, 10 member countries for 1982 and 12 member countries for 1989.

D. Emergence of an integrated international production system

47. The strategies adopted by transnational corporations and the organizational forms introduced to carry out these strategies are related to major changes in the world economy and to policies adopted by Governments of home and host countries. New technologies, growing demand for final output and the opening of larger portions of the world economy to movements in goods and services have been particularly important. In response to these changing conditions, transnational corporations have adopted strategies that seek to exploit their competitive advantages throughout the value chain and in a wide range of locations. These strategies have led to a greater functional interrelation among the elements of the value chain and across locations. At the same time, the growing importance of technology, organization and access to markets, areas in which transnational corporations possess particular advantages, have given these firms a growing role in world-wide economic change. The combination of the growing role of transnational corporations and the spread of their complex international production strategies has led to the beginnings of an integrated international production system. 35/

IV. IMPLICATIONS FOR DEVELOPING COUNTRIES

A. Developing countries and complex international production

48. A central feature of the emerging international production system is the importance of transnational corporations as the locus of various economic activities. This importance derives from the overall environment, particularly the role of technology and an open environment for trade and investment. Moreover, while the outlines of this new international production system indicate a substantial potential for affecting world-wide economic development, many countries and regions are participating only partially. Transnational corporations have been focusing primarily on establishing or strengthening their international production networks in the three regions of the Triad. Most developing countries have not been integrated into the evolving international production system. To the extent that an integrated international production system creates the primary impulses for global economic growth and development, both the role of transnational corporations and the contribution of countries and regions need to be fully evaluated.

B. Locational advantages of host countries under complex international production

49. Traditionally, transnational corporations locate within a host economy because the locational advantages of that economy, combined with the ownership advantages possessed by the transnational corporations and the advantages achievable through internalizing cross-border transactions, provide the most favourable environment for attaining strategic objectives. The most important locational advantages have been market size and growth, availability of skilled labour and/or low-cost labour, natural resources, infrastructure, a policy environment favourable to international production and proximity to other large markets. 36/

50. The growing scope for complex international production implies changes in the nature of the locational advantages that are most favourably evaluated by transnational corporations. As the entire value chain becomes a potential candidate for inclusion in complex international production, a wider range of corporate activities can be located in host economies. In principle, this gives host developing countries a better chance of matching their locational advantages with the needs of transnational corporations, as well as improving their chances of attracting a multiplicity of transnational corporation activities. In addition, as transnational corporations increasingly embody a complex package of attributes in their international production activities, they also require a differentiated package of locational advantages from host economies. So far, the newly industrializing economies in Asia have attracted complex international production activities because they offer growing markets, various levels of labour skills, favourable policy environments, efficient transportation and communications networks and access to a large and growing regional economy.

51. Among developing countries, the newly industrializing economies are likely to continue to have the greatest success in attracting foreign direct investment as part of complex international production strategies of transnational corporations. Other developing countries will continue to attract stand-alone affiliates, natural resource foreign direct investment or manufacturing and services outsourcing. However, unless they develop a wider range of locational advantages, most developing countries are likely to experience difficulties in attracting foreign direct investment in the higher value-added activities.

52. Two areas in particular stand out for developing countries seeking to attract those activities of transnational corporations most likely to contribute to national value added. One is to concentrate on improving human and physical infrastructure, including entrepreneurial and business skills, attributes of a national economy that are potentially attractive to transnational corporations, yet remain capable of being influenced by national policies. A second is to seek closer linkages with neighbouring economies, in order to generate larger markets and complementary locational advantages.

53. An additional consideration for host developing countries is the degree of integration of their policy frameworks. Policies related to international trade, human resource development, physical infrastructure, domestic capital formation, taxation and other areas are important to the attraction of integrated international production. As transnational corporations adopt strategies involving greater integration, host countries may also consider adopting a more integrated policy framework, as a means of ensuring consistency across the different policy arenas and focusing on attracting individual elements of complex international production carried out by transnational corporations.

V. CONCLUSION

54. As transnational corporations have been adopting new strategies and organizational structures, the functional and geographical scope of international production has been undergoing significant change. The evolution of the strategies of transnational corporations is far from complete; each of

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the major forms of strategy - stand-alone affiliates, simple integration and complex integration - is applied by transnational corporations in different circumstances. Indeed, each strategy may be employed within a single firm and it may be accurate to describe strategies at the level of the firm as representing a mix of the different forms. Nevertheless, there does appear to be a definite evolution of strategies towards those involving a more complex type of cross-border, intra-firm integration of the value chain over a wider geographical area.

55. The evolution of strategic possibilities is determined by changes in economic conditions, policy changes and developments in technology, especially information technology. Each strategy creates competitive advantages under certain conditions. As conditions change, transnational corporations have incentives to seek out new strategies and new organizational structures, in order to exploit more effectively the resources they control.

56. As new strategies and structures evolve, the nature of international production undergoes important changes. Locational advantages become more complex and interrelated, hence host economies, especially developing economies, need to evaluate and update their policy frameworks for attracting foreign direct investment and the activities of transnational corporations. In addition, organizational innovations on the part of transnational corporations can alter management methods and raise issues of governance that need to be addressed in the context of national and international regulatory frameworks.

Notes

1/ Official Records of the Economic and Social Council, 1992, Supplement No. 6 (E/1992/26), part two, para. 15.

2/ See, for example, Transnational Corporations in World Development: Trends and Prospects (United Nations publication, Sales No. E.88.II.A.7); World Investment Report, 1991: The Triad in Foreign Direct Investment (United Nations publication, Sales No. E.91.II.A.12); DeAnne Julius, Global Companies and Public Policy (London, Pinter Publishers, 1990).

3/ World Investment Directory, 1992: The Developed Economies (United Nations publication, forthcoming).

4/ World Investment Report, 1992: Transnational Corporations as Engines of Growth (United Nations publication, Sales No. E.92.II.A.19), chap. II.

5/ Ibid., chap. X.

6/ For analyses of strategies of transnational corporations, see Donald J. Lecraw and Allen J. Morrison, eds., Transnational Corporations and Business Strategy, The United Nations Library on Transnational Corporations (London, Routledge, 1993).

7/ For analyses of structures of transnational corporations, see Gunnar Hedlund, ed., Organization of Transnational Corporations, The United Nations Library on Transnational Corporations (London, Routledge, 1993).

8/ Alfred D. Chandler, Jr., Strategy and Structure: Chapters in the History of the American Industrial Enterprise (Cambridge, Massachusetts, The MIT Press, 1962).

9/ Richard E. Caves, Multinational Enterprise and Economic Analysis (Cambridge, Cambridge University Press, 1982), pp. 74-81.

10/ The classic statement of the economic rationale of the firm, originally published in 1937, is R. H. Coase, "The nature of the firm", in The Firm, the Market, and the Law (Chicago, University of Chicago Press, 1988), pp. 33-56.

11/ See John H. Dunning, "The eclectic paradigm of international production: a restatement and some possible extensions", in Explaining International Production (London, Unwin Hyman, 1988), pp. 41-70.

12/ Sunita Wadekar Bhargava, "Software from India? Yes, it's for real", Business Week, 18 January 1993.

13/ See, for example, Peter Dicken, Global Shift: The Internationalization of Economic Activity (New York, The Guilford Press, 1992).

14/ Theodore Levitt, "The globalization of markets", Harvard Business Review, No. 61 (May-June 1983), pp. 92-102.

15/ Kenichi Ohmae, Triad Power: The Coming Shape of Global Competition (New York, The Free Press, 1985).

16/ For an argument that the convergence of consumer tastes is incomplete, see Susan P. Douglas and Yoran Wind, "The myth of globalization", Columbia Journal of World Business, No. 22 (Winter 1987), pp. 19-29.

17/ Multinational Corporations in World Development (United Nations publication, Sales No. E.73.II.A.11), table 4, p. 138.

18/ "The universe of transnational corporations: report of the Secretary-General" (E/C.10/1993/11), table 1.

19/ These data are presented and analysed in World Investment Directory, 1992

20/ Geri Smith and John Pearson, "The new world's newest trade bloc", Business Week, 4 May 1992.

21/ For a discussion of regional core networks of transnational corporations, see World Investment Report, 1991 ..., pp. 44-53.

22/ World Investment Report, 1992 ..., pp. 32-46.

23/ John Hagedoorn and Jos Schakenraad, "The internationalization of the economy, global strategies and strategic technology alliances", Nouvelles de la Science et des Technologies, No. 9 (1991), pp. 29-41.

24/ See, for example, Sylvia Ostry, "The new international order: the regionalization trend", paper prepared for the International Conference on the New International Order, Rio de Janeiro, Brazil, 13 and 14 April 1992.

25/ According to Peter Dicken, for example, globalization "implies a degree of functional integration between internationally dispersed economic activities"; globalization "is a more advanced and complex form of internationalization", which, in turn, involves "the increasing geographic spread of economic activities across national boundaries", Dicken, op. cit., p. 1.

26/ John Griffiths, "Toyota reveals names of key European car parts suppliers", Financial Times, 11 December 1992.

27/ John H. Dunning, "Multinational enterprises in the business services sector: a study in locational choice", op. cit.

28/ Peter Dicken, op. cit., pp. 298-303.

29/ Christopher Lorenz, "When head office goes native", Financial Times, 2 December 1992; Joann S. Lublin, "Firms ship unit headquarters abroad", Wall Street Journal, 9 December 1992.

30/ International Cooperation Agreements and International Mergers and Acquisitions in the 1980s: Central Measures in the Strategies of Transnational Corporations (United Nations publication, forthcoming).

31/ Edward M. Graham and Paul R. Krugman, Foreign Direct Investment in the United States (Washington, D.C., Institute for International Economics, 1991), especially pp. 149-155.

32/ World Investment Report, 1992 ..., chap. VI.

33/ Kan H. Young and Charles E. Steigerwald, "Is foreign investment in the U. S. transferring U. S. technology abroad?", Business Economics, No. 25 (October 1990), p. 29.

34/ A slightly different index of integration was developed by Stephen Kobrin; see "An empirical analysis of the determinants of global integration", Strategic Management Journal, No. 12 (1991), pp. 17-31.

35/ See World Investment Report, 1992 ..., chap. X.

36/ The Determinants of Foreign Direct Investment: A Survey of the Evidence (United Nations publication, Sales No. E.92.II.A.2).
